6JC6A

Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE
FRAME-GRID CONSTRUCTION — DARK HEATER

For Use in IF-Amplifier Stages of Color- and Black-and-White TV Receivers

ELECTRICAL CHARACTERISTICS

Bogey Values[a]

Heater Voltage (AC or DC)	E_h	6.3	V
Heater Current	I_h	0.300	A
Direct Interelectrode Capacitances			
Without external shield			
Grid No.1 to plate	C_{g1-p}	0.019 max	pF
Input: G1 to (K, G3 + IS, G2, H)	C_i	8.5	pF
Output: P to (K, G3 + IS, G2, H)	C_o	3.0	pF
For the following characteristics, see Conditions			
Plate Resistance (Approx.)	r_p	180	Ω
Transconductance	g_m	16000	μmho
DC Plate Current	I_b	14	mA
DC Grid-No.2 Current	I_{c2}	3.4	mA
Cutoff DC Grid-No.1 Voltage	$E_{c1(co)}$	-3	V
Plate μA = 100			

Conditions

Heater Voltage	E_h	Bogey Value	V
DC Plate Supply Voltage	E_{bb}	125	V
Grid No.3	-	Connected to cathode at socket	
DC Grid-No.2 Supply Voltage	E_{cc2}	125	V
Cathode Resistor	R_k	56	Ω

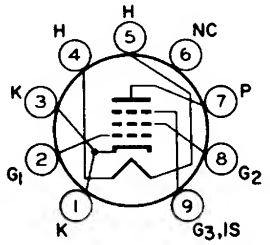
MECHANICAL CHARACTERISTICS

Operating Position	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length	2.187 in
Maximum Seated Length	1.937 in
Length, Base Seat to Bulb Top, Excluding tip	1.469 to 1.656 in
Maximum Diameter	0.875 in
Dimensional Outline (JEDEC 6-2)	See *General Section*
Envelope	JEDEC T6-1/2
Base	Small-Button Noval 9-Pin (JEDEC E9-1)

6JC6A

TERMINAL DIAGRAM (Bottom View)

Pin 1 – Cathode
Pin 2 – Grid No.1
Pin 3 – Cathode
Pin 4 – Heater
Pin 5 – Heater
Pin 6 – No Internal Connection
Pin 7 – Plate
Pin 8 – Grid No.2
Pin 9 – Grid No.3, Internal Shield



9PM

DESIGN-MAXIMUM RATINGS

For operation as a Class A_1 Amplifier Tube

DC Plate Voltage	E_b	330	V
Positive DC Grid-No.3 (Suppressor-Grid) Voltage	E_{c3}	0	V
DC Grid-No.2 (Screen-Grid) Supply Voltage	E_{cc2}	330	V
DC Grid-No.2 Voltage	E_{c2}	See *Grid-No.2 Input Rating Chart* at front of Receiving Tube Section	
DC Grid-No.1 (Control-Grid) Voltage			
Positive-bias value	E_{c1}	0	V
Heater-Cathode Voltage			
Peak	e_{hkm}	±200	V
DC	E_{hk}	100	V
Heater Voltage (AC or DC)	E_h	5.7 to 6.9	V
Grid-No.2 Input	P_{g2}		
For $E_{c2} \leq 165$ V	-	0.7	W
For $E_{c2} \geq 165$ V and ≤ 330 V	-	See *Grid-No.2 Input Rating Chart* at front of Receiving Tube Section	
Plate Dissipation	P_b	3.1	W

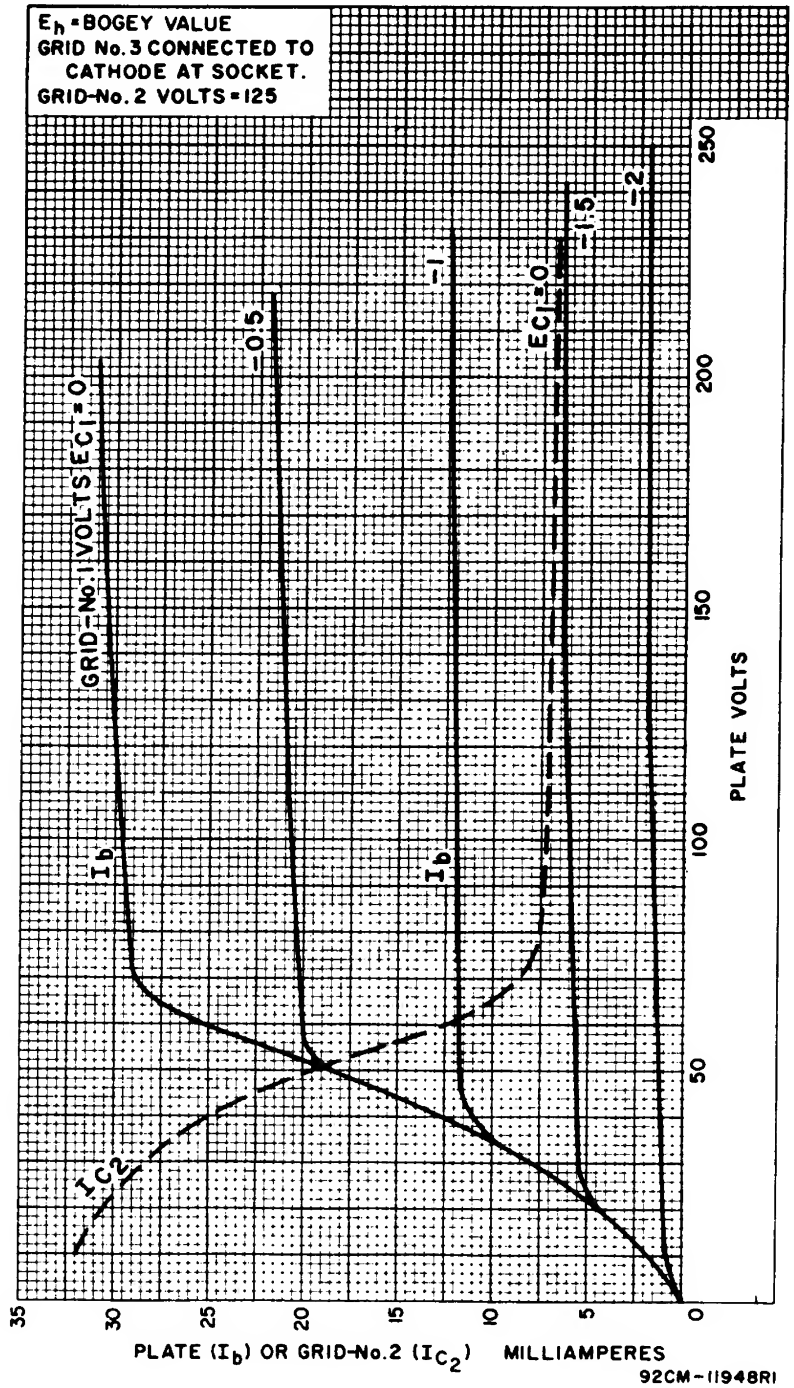
MAXIMUM CIRCUIT VALUES

Grid-No.1 Circuit Resistance	$R_{g1(ckt)}$		
For fixed-bias operation	-	0.25	MΩ
For cathode-bias operation	-	1	MΩ

[a] Unless otherwise specified.

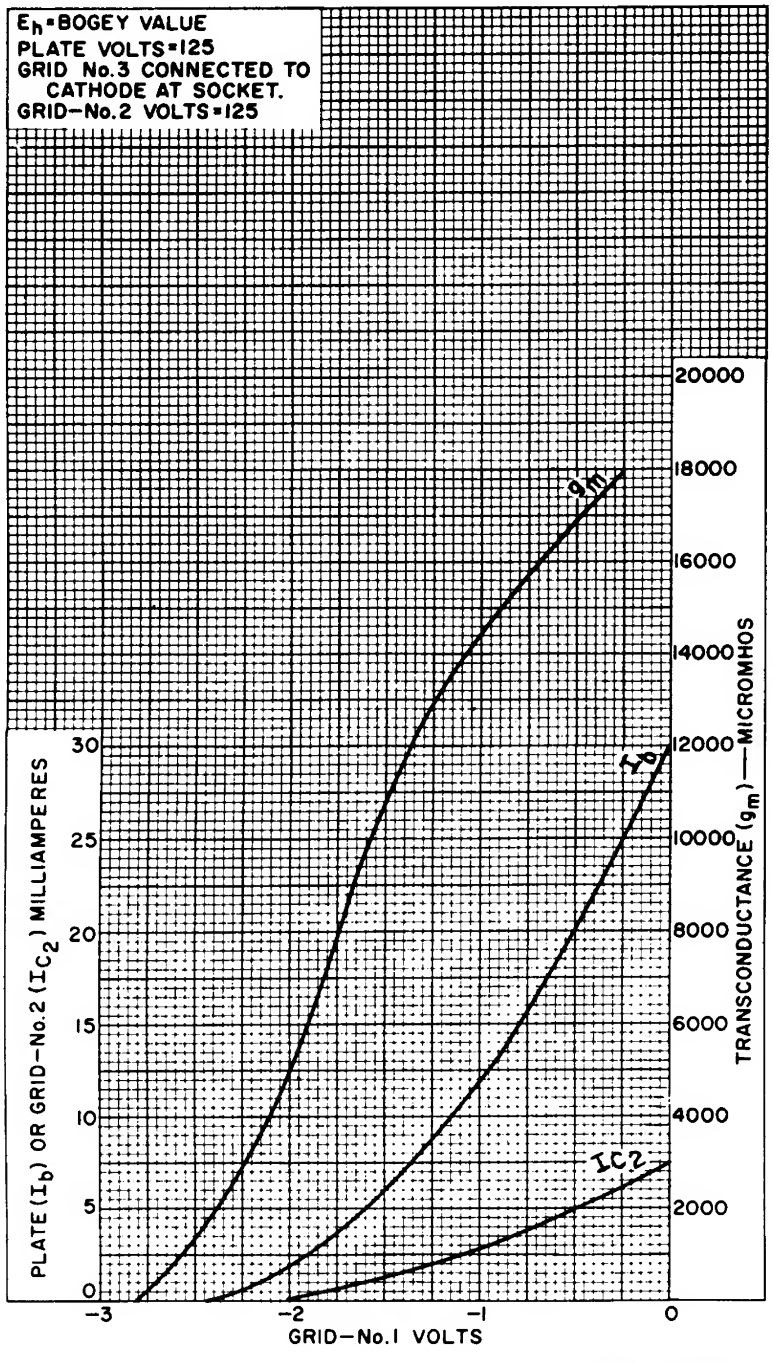
RADIO CORPORATION OF AMERICA
Electronic Components and Devices Harrison, N. J.

Typical Characteristics



6JC6A

Typical Characteristics



92CM-11949R1

RADIO CORPORATION OF AMERICA
Electronic Components and Devices Harrison, N. J.